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(71) Applicant (for all designated States except US): NATIONAL UNIVERSITY OF SINGAPORE [SG/SG]; 10 Kent Ridge Crescent, Singapore 119260 (SG).

(72) Inventor; and

(75) Inventor/Applicant (for US only): YANG, Hongyuan [CN/SG]; 105 Clementi Road, #04-08, Singapore 129789 (SG).

(74) Agent: DREW & NAPIER LLC; 20 Raffles Place, #17-00 Ocean Towers, Singapore 048620 (SG).

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(54) Title: TRIACYLGLYCEROL-DEFICIENT FISSION YEAST AND ITS USES

(57) Abstract: A fission yeast having non-functional *dgsl* and *plhl* genes, which is incapable of synthesizing triacylglycerols, is disclosed. The fission yeast is susceptible to lipotoxicity including lipoapoptosis, and is useful for screening of compounds that inhibit or prevent lipotoxicity or lipoapoptosis. The fission yeast strain may be transformed to express a mammalian enzyme involved in triacylglycerol synthesis, and therefore is also useful for screening of compounds that inhibit or prevent triacylglycerol synthesis, which activity is conferred by the mammalian enzyme.



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